# Procter & Gamble - Intellectual Property Division

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Attn: Examiner L.S. Channavajjala

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1) Appeal Brief (9 pages).

Number of Pages Including this Page: 10

Application No.

10/049,497

Applicant(s)

O'Toole, Edel et al.

Filed

February 13, 2002

Title

Hair Care Compositions

TC/A.U.

1615

Conf. No.

7650

Docket No.

CM2140

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Examiner

L.S. Channavajjala

Conf. No.

7650

Docket No.

CM2140

Customer No.

27752

#### APPEAL BRIEF

Mail Stop Appeal Brief - Patents Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

This Appeal Brief is submitted in support of the Notice of Appeal filed via facsimile on February 1, 2005, providing for timely filing up to and including April 1, 2005.

#### REAL PARTY IN INTEREST

The real party in interest is The Procter & Gamble Company of Cincinnati, Ohio.

### RELATED APPEALS AND INTERFERENCES

There are no known related appeals, interferences, or judicial proceedings.

#### STATUS OF CLAIMS

Claims 1-4 and 8-10 are rejected.

Claims 1-4 and 8-10 are appealed.

A complete copy of the appealed claims is set forth in the Claims Appendix attached hereto.

#### STATUS OF AMENDMENTS

No amendment was filed after the Final Office Action of November 3, 2004.

## SUMMARY OF CLAIMED SUBJECT MATTER

Claim 1 is directed to a hair care composition comprising at least one ester derivative of tyrosine and at least one other amino acid compound selected from tryptophan compounds, histidine compounds, and lysine compounds, and a cosmetically acceptable carrier which is suitable for use on hair and which comprises one or more hair conditioning agents selected from the group consisting of silicone conditioning agents and cationic conditioning agents. See the specification of the present application at page 4, lines 9-12; page 7, lines 2-3; page 11, lines 17-19; and page 12, lines 24-27.

Claim 2 is directed to a hair care composition comprising at least one ester derivative of tyrosine and at least two other amino acid compound selected from tryptophan compounds, histidine compounds, and lysine compounds, and a cosmetically acceptable carrier which is suitable for use on hair and which comprises one or more hair conditioning agents selected from the group consisting of silicone conditioning agents and cationic conditioning agents. See the specification of the present application at page 4, lines 12-14; page 7, lines 2-3; page 11, lines 17-19; and page 12, lines 24-27.

Claim 3 is directed to a hair care composition comprising at least one ester derivative of tyrosine, at least one histidine compound, at least one lysine compound, and a cosmetically acceptable carrier which is suitable for use on hair and which comprises one or more hair conditioning agents selected from the group consisting of silicone conditioning agents and cationic conditioning agents. See the specification of the present application at page 4, lines 14-17; page 7, lines 2-3; page 11, lines 17-19; and page 12, lines 24-27.

Claim 10 is directed to a method of treating hair comprising applying a composition according to claim 1 to the hair. See the specification of the present application at page 44, lines 3-4.

The claimed hair care compositions target the hair shaft, improving the strength and condition of the hair. It has been found that the levels of certain amino acids are reduced in damaged hair in comparison to undamaged hair. The claimed hair care compositions provide the benefits of improved strength and improved condition to

damaged hair with the specific combination of amino acid compounds together with conditioning agents. See the specification of the present application at page 2, lines 1-7.

# GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The following ground of rejection is submitted for consideration on appeal by the Board:

I. Rejection under 35 U.S.C. § 103(a) over US Patent No. 5,290,562 to Meybeck et al. ("Meybeck") in view of JP 57-109711 A to Hideo et al. ("Hideo").

#### **ARGUMENTS**

In the Office Action of November 3, 2004, the Examiner finally rejected Claims 1-4 and 8-10 as being unpatentable under 35 U.S.C. § 103(a) over US Patent No. 5,290,562 to Meybeck et al. ("Meybeck") in view of JP 57-109711 A to Hideo et al. ("Hideo"). In the Advisory Action of February 23, 2005, the Examiner maintained the rejection of Claims 1-4 and 8-10.

For the reasons set forth below, Appellants submit that Claims 1-4 and 8-10 are patentably distinct from and nonobvious over the cited references. Thus, the Board should reverse the Examiner's rejections. Accordingly, favorable action by the Board is respectfully requested.

I. Rejection under 35 U.S.C. § 103(a) over US Patent No. 5,290,562 to Meybeck et al. ("Meybeck") in view of JP 57-109711 A to Hideo et al. ("Hideo").

Claims 1-4 and 8-10 are finally rejected under 35 U.S.C. § 103(a) as being obvious over US Patent No. 5,290,562 to Meybeck et al. ("Meybeck") in view of JP 57-109711 A to Hideo et al. ("Hideo").

Claim 1 is directed to a hair care composition comprising at least one ester derivative of tyrosine and at least one other amino acid compound selected from tryptophan compounds, histidine compounds and lysine compounds, and a cosmetically acceptable carrier which is suitable for use on hair and which comprises one or more hair conditioning agents selected from the group consisting of silicone conditioning agents

and cationic conditioning agents. The claimed hair care compositions target the hair shaft, providing the benefit of improved strength and condition of the hair. It has been found that the levels of certain amino acids are reduced in damaged hair in comparison to undamaged hair. The claimed hair care compositions provide the benefits of improved strength and improved condition to damaged hair with a specific combination of amino acid compounds and the hair conditioning agents. To achieve a composition with each of the elements of the claimed hair care compositions, the Examiner combines the teachings of Meybeck and Hideo.

First, the Examiner asserts that Meybeck discloses cosmetic compositions which contain methyl tyrosinate, ethyl tyrosinate, or stearyl tyrosinate, and which can be used for "increasing the content of melanin and thus improve the hair complexion." Office Action of November 3, 2004 at page 2. The Examiner also notes that Meybeck teaches incorporating tyrosine esters, such as methyl or ethyl tyrosinate, in liposomes for the use in cosmetic compositions because tyrosine does not easily penetrate across the comeum layer of the skin. According to the Examiner, Meybeck teaches the use of the compositions containing tyrosinate salts "for both skin melanogenesis as well as for improve [sic] the complexion or retard the graying of hair (example 8)." Id. However, the Examiner acknowledges that Meybeck does not teach the use of tyrosine esters with at least one other amino acid and a hair conditioning agent.

Second, the Examiner asserts that Hideo discloses a hair cosmetic composition comprising a quaternary ammonium compound and an amino acid selected from glycine, valine, histidine, tryptophan, and threonine. The Examiner states that the quaternary ammonium compound of Hideo reads on the conditioning agent of the claimed hair care compositions. The Examiner also notes that Hideo teaches that the disclosed hair cosmetic composition provides excellent combing and softness effects to the hair. However, Hideo does not disclose the use of tyrosine esters.

According to the Examiner, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to combine the composition of Hideo, which contains amino acids and hair conditioning agents, with the composition of Meybeck, which contains tyrosine esters. In offering an apparent suggestion or motivation for making such a combination, the Examiner states that "both Meybeck and [Hideo] teach compositions for improving hair conditions and accordingly the motivation

to combination [sic] the references flows logically." Office Action of November 3, 2004 at page 3. Further, the Examiner states that one of ordinary skill in the art, by combining Meybeck and Hideo, would have expected to achieve a composition for improving hair combing and softness effects while simultaneously treating graying hair.

Appellants respectfully submit that the obviousness rejection should be withdrawn because the Examiner has failed to provide a proper suggestion or motivation for combining Meybeck and Hideo. Indeed, Appellants respectfully submit that there is no suggestion or motivation to combine Meybeck and Hideo, and, thus, a prima facie case of obviousness has not been established. "When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references." In re Rouffet, 149 F.3d 1350, 1355, 47 USPQ2d 1453 (Fed. Cir. 1998). "[T]he question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." Id. at 1356. "[T]hree possible sources for a motivation to combine references [are] the nature of the problem to be solved, the teaching of the prior art, and the knowledge of persons of ordinary skill in the art." Id. at 1357. There is no suggestion or motivation to combine the teachings of Meybeck and Hideo because the composition of Meybeck addresses a different problem and functions in a different manner than the composition of Hideo. As a result, one of ordinary skill in the art would not look to the teachings of one of the references to modify or improve the teachings of the other.

As discussed above, Meybeck teaches and claims compositions and their methods of use for increasing melanin formation on the skin and the scalp. The disclosure of Meybeck is primarily directed to compositions which accelerate the tanning of the skin by improving melanogenesis in the skin. Although, the Examiner points to Example 8 of Meybeck as support for the assertion that the composition of Meybeck "improves the condition of hair" because the composition is taught to retard the appearance of gray hair. Notably, however, Example 8 of Meybeck expressly states that "[t]his lotion, applied morning and evening to the scalp, retards the appearance of gray hair" (emphasis added). Thus, the composition of Meybeck retards the appearance of gray hair by acting on the scalp. The composition of Meybeck does not target the hair shaft to provide its benefit. In particular, the composition of Meybeck does not act analogous to, for example, a hair coloring composition which affects the color of the shaft of existing hair. Instead, the

composition of Meybeck acts on the scalp, penetrating the epidermis to improve melanin formation in the hair follicle and in newly growing hair. Nothing in the disclosure of Meybeck teaches or suggests targeting the shaft of existing damaged hairs for the application of the composition of Meybeck. Nor does Meybeck provide any teaching or suggestion for improving the condition of hair subject to damage resulting from washing, treating, styling, or exposure to the elements.

In contrast to the composition of Meybeck, the composition of Hideo provides the benefits of improved combing properties and hair softness by targeting the shaft of existing hair. Hideo is directed to a hair cosmetic composition comprising an amino acid, such as glycine, L-valine, L-isoleucine, L-serine, L-threonine, L-phenylalanine, and L-tryptophan, in combination with a certain quaternary ammonium salt in a specific ratio. The composition of Hideo can be used as either a tinse-out or leave-in type hair cosmetic. However, Hideo fails to teach or suggest applying the hair cosmetic composition to the skin or the scalp such that benefits would be provided when the composition penetrates the epidermis. Additionally, as discussed above, Hideo does not teach or suggest the use of tyrosine esters.

The composition of Meybeck targets the skin or the scalp to improve melanin formation below the epidermis, whereas the composition of Hideo targets the shaft of existing hair above the skin to improve the condition of that hair. The Examiner has offered no other suggestion or motivation for combining Meybeck and Hideo, aside from that "both Meybeck and [Hideo] teach compositions for improving hair conditions and accordingly the motivation to combination [sic] the references flows logically." Office Action of November 3, 2004 at page 3. Applicants respectfully submit that one of ordinary skill in the art would not look to a composition which provides a benefit by acting below the surface of the skin to modify or improve a composition which provides a benefit to the shafts of damaged hair above the surface of the skin.

Accordingly, the combination of Meybeck and Hideo does not establish a *prima* facie case of obviousness because there is no suggestion or motivation to combine the references. Therefore, a rejection of Claims 1-4 and 8-10 under 35 U.S.C. § 103(a) as being obvious over Meybeck in view of Hideo is improper, and Appellants respectfully request that the rejection be reversed.

Date: April 1, 2005

Customer No. 27752

Appl. No. 10/049,497 Atty. Docket No. CM2140 Appeal Brief dated April 1, 2005 Reply to Office Action of November 3, 2004 Customer No. 27752

#### **SUMMARY**

Based on the reasons set forth above, Appellants submit that Claims 1-4 and 8-10 are patentably distinct from and nonobvious over the cited references. Accordingly, the rejections under 35 USC §103(a) are improper, and Appellants respectfully request the reversal of these rejections by the Board.

Respectfully submitted,

THE PROCTER & GAMBLE COMPANY

Signature

Marianne Dressman

Typed or Printed Name Registration No. 42,498

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#### **CLAIMS APPENDIX**

The following is a listing of claims 1-4 and 8-10, which are the claims involved in the Appeal:

- 1. (Rejected) A hair care composition comprising:
  - a) at least one ester derivative of tyrosine;
  - b) at least one other amino acid compound selected from tryptophan compounds, histidine compounds and lysine compounds; and
  - c) a cosmetically acceptable carrier which is suitable for use on hair, said cosmetically acceptable carrier comprising one or more hair conditioning agents selected from the group consisting of silicone conditioning agents and cationic conditioning agents.
- (Rejected) A hair care composition comprising:
  - a) at least one ester derivative of tyrosine;
  - b) at least two other amino acid compound selected from tryptophan compounds, histidine compounds and lysine compounds; and
  - c) a cosmetically acceptable carrier which is suitable for use on hair, said cosmetically acceptable carrier comprising one or more hair conditioning agents selected from the group consisting of silicone conditioning agents and cationic conditioning agents.
- (Rejected) A hair care composition comprising:
  - a) at least one ester derivative of tyrosine;
  - b) at least one histidine compound;
  - c) at least one lysine compound; and
  - d) a cosmetically acceptable carrier which is suitable for use on hair, said cosmetically acceptable carrier comprising one or more hair conditioning agents selected from the group consisting of silicone conditioning agents and cationic conditioning agents.

- 4. (Rejected) A composition according to Claim 1 wherein said amino acid compounds have a water solubility of at least about 0.1g/l at 25°C.
- 5. (Canceled)
- 6. (Canceled)
- 7. (Canceled)
- 8. (Rejected) A composition according to Claim 1 wherein said ester derivative of tyrosine is an alkyl or aryl ester derivative of tyrosine.
- 9. (Rejected) A composition according to Claim 1 wherein said ester derivative of tyrosine is a C<sub>1</sub>-C<sub>4</sub> alkyl ester derivative of tyrosine.
- 10. (Rejected) A cosmetic method of treating hair comprising applying a composition according to Claim 1 to said hair.